

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-21 (Cancelled).

Claim 22 (Currently Amended): A device for chemical or biological analysis comprising a carrier ~~containing~~ comprising a plurality of analysis sites able to fix a chemical or biological reagent, ~~in which~~ wherein the analysis sites are formed of microdishes (23, 53) hollowed out of the carrier, (21, 51), the side walls and the bottom of the microdishes and the areas of the carrier surface surrounding each microdish, called microdish edges, being made in at least one hydrophilic material (24, 26, 55, 57) and the planar areas of the carrier arranged between the areas surrounding the microdishes being made in a hydrophobic material; (27, 59)

wherein the bottoms of the microdishes are made in a first hydrophilic material, and at least part of the side walls of the microdishes and the edges of the microdishes are made in a second hydrophilic material, solely the first hydrophilic material being able to fix the chemical or biological reagent.

Claim 23 (Currently Amended): The device according to claim 22, ~~in which~~ wherein the microdishes have the shape of a flattened cone whose smaller base corresponds to the bottom of the microdish.

Claim 24 (Currently Amended): The device according to claim 22, ~~in which~~ wherein the side walls, the bottoms and the edges of the microdishes are made in the same hydrophilic material.

Claim 25 (Cancelled).

Claim 26 (Currently Amended): The device according to claim 22, ~~in which~~ wherein the ~~at least one hydrophilic material~~ material(s) contain comprises at least one hydrophilic

~~group groups chosen from among the epoxy groups, selected from the group consisting of an epoxy group, -OH, -SH, -NH-, -NH₂, and -COOH, and combinations thereof.~~

Claim 27 (Currently Amended): The device according to claim 22, ~~in which wherein~~ the at least one hydrophobic material ~~contains~~ comprises at least one hydrophobic ~~group~~ groups chosen from among the selected from the group consisting of a hydrocarbon-containing group, and a fluorocarbon-containing group, and combinations thereof. ~~groups~~.

Claim 28 (Currently Amended): The device according to claim 25 ~~22~~, ~~in which~~ wherein the first hydrophilic material ~~contains~~ comprises hydrophilic groups different to those of the second hydrophilic material.

Claim 29 (Currently Amended): The device according to claim 22, ~~in which wherein~~ the carrier comprises an active substrate with an integrated electronic system having electronic functions.

Claim 30 (Currently Amended): The device according to claim 22, ~~in which wherein~~ the biological reagent is an oligonucleotide.

Claim 31-32 (Cancelled).

Claim 33 (Currently Amended): A method for producing a device for chemical or biological analysis according to claim 22, [[25,]] which comprises the following steps:

- a) hollowing out microdishes on the surface of the carrier,
- b) defining the areas of the carrier surface which are to contain a hydrophobic material,
- c) defining, on the carrier surface not containing comprising any hydrophobic material and on the surface of the microdishes, first areas corresponding to the sites of the first hydrophilic material and second areas corresponding to the sites of the second hydrophilic material, and

d) forming the first hydrophilic material on the first areas and the second hydrophilic material on the second areas.

Claims 34-43 (Cancelled).

Claim 44 (Currently Amended): The method according to claim 33, further comprising an additional step to form

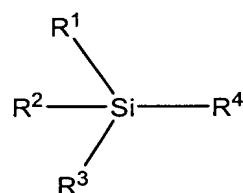
forming a hydrophobic material on the areas of the carrier surface which are to contain a hydrophobic material.

Claim 45 (Currently Amended): The method according to claim 33, in which wherein the microdishes are formed by etching.

Claim 46 (Currently Amended): The method according to claim 33, in which wherein the carrier comprises a surface layer in a polymer or a mineral oxide deposited on an active substrate having an electronic function, and the microdishes are made by etching in the polymer or oxide layer.

Claim 47 (Currently Amended): The method according to claim 44, in which wherein the carrier being in silicon or in glass, the hydrophobic material is formed by reaction of the glass or silicon, previously subjected to oxidation, with a hydrophobic silanisation agent.

Claim 48 (Currently Amended): The method according to claim 47, in which wherein the hydrophobic silanisation agent is a silane having the formula:

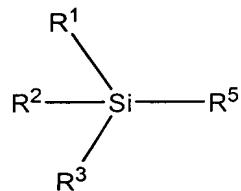


in which wherein R^1 , R^2 and R^3 , which may be identical or different, are chosen selected from among the the group consisting of a C₁ to C₃ alkoxy group, alcoxy groups and the a halogen atom, and combinations thereof atoms, and R^4 is a hydrocarbon-containing or or fluorocarbon-containing group, either linear or branched.

Claims 49-54 (Cancelled).

Claim 55 (Currently Amended): The method according to claim 33, ~~in which wherein~~ the carrier being in silicon or in glass, the hydrophilic material is formed by reaction of the glass or silicon, previously subjected to oxidation, with a hydrophilic silanisation agent.

Claim 56 (Currently Amended): The method according to claim 55, ~~in which wherein~~ the hydrophilic silanisation agent is a silane having the formula:



~~in which wherein~~ R^1 , R^2 and R^3 , which may be identical or different, are chosen from among the selected from the group consisting of a C_1 to C_3 alkoxy alkoxy group, a halogen atom, and combinations thereof; groups and the halogen atoms, and R^5 is a hydrocarbon- or fluorocarbon-containing group, either linear or branched, containing comprising at least one hydrophilic group chosen from among the selected from the group consisting of an epoxy group, groups, $-\text{OH}$, $-\text{SH}$, $-\text{NH}_2$, $-\text{NH}-$, and $-\text{COOH}$, and combinations thereof.

Claim 57 (Currently Amended): The method according to claim 44, ~~in which wherein~~ the hydrophobic material is formed by reaction of a metallic layer in gold, silver, copper or one of their alloys, deposited on the areas of the carrier surface which are to be formed of hydrophobic material, by reaction of this layer with a thiol or a disulfide containing comprising a hydrophobic hydrocarbon-containing group or fluorocarbon containing group.

Claims 58-59 (Cancelled).

Claim 60 (Currently Amended): The method according to claim 33, ~~in which wherein~~ the hydrophilic material is formed by reaction of a metallic layer in gold, silver, copper or one of their alloys, deposited on the areas of the carrier which are to be formed of the hydrophilic material, by reaction of this-layer with a thiol or a disulfide containing

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comprising at least one hydrophilic group chosen from among the selected from the group
consisting of an epoxy group, groups, -OH, -SH, -NH-, -NH₂, and -COOH, and
combinations thereof.